

## Fram Focus volume 1:6 / May 2016

The Fram Advisory Board congratulates the winners of the 2016 Awards for *Applied Critical Thinking* excellence at Imagine! Each team will share 250 Tiger Bucks!

***Please visit these great exhibits on Saturday (see the bottom of this newsletter).***

### **Small Group Award (Exhibit INS-1160): Robotic Eye Motion Simulator**

**Team:** Amy Zeller, Joshua Long, Nathan Twichel, Peter Cho, Jordan Blandford

**Synopsis:** The objective of this project is to develop a robotic eye that mimics human eye movement to provide a standard for eye tracker testing and to do this within a budget of \$2,000. Our senior design team has utilized critical thinking since day one in senior design. It has allowed us to evaluate ideas and to make informed decisions about our project. One of the biggest challenges that our team had to overcome was coming up with a motor to use for our design that both our team and customer agreed upon. An eye tracker is a device that tracks human eye movement and estimates gaze position. Eye trackers have long been used in psychology research, visual system research, marketing, and, recently, as an input device for human-computer interaction. The quality of the data eye trackers output is a fundamental aspect for any research based on eye tracking. There is currently no standardized test method for evaluating the quality of data collected from eye trackers. The lack of standard may lead to research being based on unreliable data. Different manufacturers measure quality using their own methods and researchers either measure it again using different methods or simply report whatever numbers the manufacturer provides. However, the goal of this project is to make the robotic eye affordable, which is necessary to make the use of this eye practical for eye tracker manufacturers and eye tracking researchers to use as a standard. Therefore, our team set out to find a motor that was less than \$2,000, had a velocity of 8.73 rad/s and a repeatability of 0.015 degrees.

### **Large Group Award (Exhibit SUS-3260): Your Decisions Make Sustainability Possible!**

**Team:** Jennifer Russell (Coordinator, Golisano Institute for Sustainability) Reema Aldossari, Yi Feng, Shih-Hsuan Huang, Michael Kelly, Nicolas Matthew Miclette, Wilson Sparberg Patton, Wenjing Qi, Kaining Qiu, Elizabeth Stegner, Jiahe Tian, Akanksha Vishwakarma, Hui-Yu Yang, Yue Zhang, Runhao Zhao (Industrial Design Graduate Students)

**Faculty, Staff & Community Industry Mentors:** Brian Hilton (Golisano Institute for Sustainability), Clyde Hull (Saunders College of Business), Stan Rickel (School of

Industrial Design), Marissa Tirone (School of Industrial Design), Bill Davies (President, Davies Office), Doug Pilgrim (National Business Development Manager, Davies Office)

**Synopsis:** Our society is facing some significant environmental and social challenges; some of these must be tackled through government and industry initiative, but for many of those challenges the most effective solutions can start right at home with the individual. Our increasing consumption of goods and services is putting significant pressure on our natural systems, as well as on our communities as they deal with increasing waste and resource constraints. We believe that, although consumers may feel helpless to fix some of these problems, in fact they have the potential to be among the most powerful drivers of needed change.

We use this Imagine RIT exhibit to explore how consumers make choices about the products they consume, and how their behaviors and evaluations are affected by new information. Specifically, we seek to understand how the consumer evaluates a 'greener' product relative to a 'normal' product, and how the product characteristics of 'cool' and 'innovative' interplay in their choices.

## Fram It!

The first five RIT community members that find these award winners, congratulate them, and email pictures of these two exhibits to [RITFramChair@rit.edu](mailto:RITFramChair@rit.edu) will win a Java Walley's treat!

### The Rules:

Rules for this Fram It!

1. You must be willing to have your photos published.
2. You must have an active RIT ID to participate.
3. The prize: The first 5 RIT community members who Fram It! successfully get a Java Wally's treat coin that they must pick up in person.